

Form PTO-1449 U.S. Department of Commerce

Atty. Docket No.  
ENZ-52(C2)

Serial No. 10/718,391

(REV. 8-83) Patent and Trademark Office

## INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

Applicants: Engelhardt, et al

Filed: Nov. 19, 2003

Group: Not yet known

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPRO- PRIATE
KS	4 9 5 7 8 5 8		Chu et al			
↓	5 2 4 1 0 6 0		Engelhardt et al			
↓	5 1 3 0 2 3 8		Malek, L.T.			
↓	4 6 8 3 1 9 5		Mullis, et al			
↓	5 2 8 8 6 0 9		Engelhardt et al			
↓	4 7 0 7 4 4 0		Stavrianopoulos et al			

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRAN- SLATION YES NO
KS	EP 0 3 2 0 3 0 8		Backman, K.			
↓	EP 0 4 3 9 1 8 2		Backman, K.			
↓	EP 0 4 3 5 1 5 0		Brakel et al			

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

KS	✓	Barany, F., Proc. Nat. Acad. Sci USA "Genetic disease detection and DNA amplification using cloned thermostable ligase," 88:189-193 (1991)
↓	✓	Fuerst, T.R. et al., "Eukaryotic transient-expression system based on recombinant vaccinia virus that synthesizes bacteriophage T7 RNA polymerase," Proc Nat Acad Sci USA 83: 8122-8126 (1986)
↓	✓	Guatelli, J.C. et al., "Isothermal, <i>in vitro</i> amplification of nucleic acids by a multienzyme reaction modeled after retroviral replication," Proc Nat Acad Sci. USA 87: 1874-78 (1990)
↓	✓	Keller and Manak (DNA Probes, MacMillan Publishers Ltd, Great Britain, and Stockton Press (U.S. and Canada, 1989, pages 225-228)
↓	✓	Karkas, J.D. et al., "Action of DNA Polymerase I of <i>Escherichia coli</i> with DNA-RNA Hybrids as Templates," Proc Nat Acad Sci U.S.A. 69(2): 398-402 (1972)
↓	✓	Kievits, T., et al. "NASBA" isothermal enzymatic <i>in vitro</i> nucleic acid amplification optimized for the diagnosis of HIV-1 infection," J. Virol. Methods 35: 273-286 (1991)
↓	✓	Landegren, U., et al., "Ligase-Mediated Gene Detection Technique," Science 241: 1077-1080 (1988)

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KS	0 7	9	5	6	5	6	6		10/5/92	Rabbani et al			
		4	7	1	1	9	5	5		Ward et al			
		5	9	5	8	6	8	1		Wetmur et al			
		5	0	4	3	2	7	2		Hartley, J.L.			
		5	3	5	4	6	6	8		Auerbach et al			
		5	5	1	6	6	6	3		Backman et al			
		6	1	8	3	9	6	1		Bernstein et al			

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		DOCUMENT NUMBER							DATE	COUNTRY	CLASS	SUB CLASS	TRAN- SLATION	
													YES	NO
KS	EP	0	1	2	8	3	3	2		Pergolizzi et al				
	EP	0	4	9	2	5	7	0		Stavrianopoulos et al				
	EP	0	5	0	0	2	2	4		Walker et al				

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

KS	✓	Kwoh, D.Y. et al., "Transcription-based amplification system and detection of amplified human immunodeficiency virus type 1 with a bead-based sandwich hybridization format," <u>Proc Nat Acad Sci. USA.</u> , 86: 1173-1177 (1989)
	✓	Lizardi et al., "Exponential amplification of recombinant RNA hybridization probes," <u>Biotechnology</u> 6: 1197-1202 (1988)
	✓	Mullis and Faloona, "Specific Synthesis of DNA <i>in Vitro</i> via a Polymerase-Catalyzed Chain Reaction," <u>Methods in Enzymology</u> 155: 335-351 (1987)
	✓	Saiki, et al., "Enzymatic Amplification of $\beta$ -Globin Genomic Sequences and Restriction Site Analysis for Diagnosis of Sickle Cell Anemia," <u>Science</u> 230: 1350-1354 (1985)
	✓	Walker, G.T. et al., "Isothermal <i>in vitro</i> amplification of DNA by a restriction enzyme/DNA polymerase system," <u>Proc Natl Acad Sci USA</u> 89: 392-396 (1992)
	✓	Walker, G.T. et al., "Strand displacement amplification - an isothermal, <i>in vitro</i> DNA amplification technique," <u>Nuc Acids Res.</u> 20: 1691-1696 (1992)

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KS	5 7 5 6 2 9 6		Cubicciotti			
↓	5 8 7 1 9 1 1		Dahlberg et al			
	5 8 4 3 7 2 3		Dubensky et al			
	5 9 5 5 3 5 1		Gerdes et al			
	5 6 1 2 2 1 2		Gerwitz			
↓	6 1 9 0 8 8 9		Jones			

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EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRAN- SLATION YES NO
KS	EP 0 5 4 3 6 1 2		Walker et al			
↓	EP 0 4 9 7 2 7 2		Walker, GT			
↓	EP 0 4 5 0 5 9 4		Segev et al			

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

KS	✓	Wetmur, J.G. and Davidson, N., "Kinetics of Renaturation of DNA," <u>J. Mol. Biol.</u> 31: 349-370 (1968)
↓	✓	Wu, D. and Wallace, R.B. "The Ligation Amplification Reaction (LAR) - Amplification of Specific DNA Sequences Using Sequential Rounds of Template-Dependent Ligation," <u>Genomics</u> 4: 560-569 (1989)
	✓	Courey et al. "Influence of DNA Sequence and Supercoiling on the Process of Cruciform Formation," <u>Journal of Molecular Biology</u> 202: 35-43 (1988)
	✓	Knorre et al. "Oligonucleotides with Highly Reactive Groups Selectively Bound By E. Coli RNA Polymerase: Identification of the Enzyme Subunits Interacting with Them and The Competitive Inhibition of Transcription," <u>IZV SIB OTD ADAD NAUK SSR SER BIOL NAUK</u> 0(2): 98-104 (1989)
	✓	Matthews et al., "Analytical Strategies for the Use of DNA Probes," <u>Analytical Biochemistry</u> 169: 1-25 (1988)
↓	✓	Meric et al., "Rous Sarcoma Virus Nucleic Acid-binding Protein p12 is Necessary for Viral 70S RNA Dimer Formation and Packaging," <u>Journal of Virology</u> , 60(2): 450-459 (1986)

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KS		5	3	9	9	4	9	1		Kacian et al			
	H1	8	2	5					12/7/99	Romano et al			
		5	1	1	8	6	0	5		Urdea			
		5	4	5	5	1	6	6		Walker			/
		5	9	6	5	4	0	9		Pardee et al			

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KS	JP	1	4	6	2	9	9		6/15/93	Aono et al				
	EP	0	1	7	8	8	6	3		Reim et al				
	EP	0	3	9	5	3	9	8		Hartley et al				

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

KS	/	Ostrander et al. "Template Supercoiling by a Chimera of Yeast GAL4 Protein and Phage T7 RNA Polymerase," <u>Science</u> 249: 1261-1265 (1990)
	/	Promega Catalog, Page 150, Figure 4G
	/	Watson et al. <u>In Molecular Biology of the Gene</u> , Benjamin/Cummings, Publishing, Ch 10 (1987)
	/	Zaichikov et al., "Study of the Elongation of Oligonucleotides Covalently Fixed at the Active Center of RNA-Polymerase," <u>Bioorganicheskaja Khimia</u> 14(1):121-124 (1988)
	/	Feinberg, A.P., et al, "A Technique for Radiolabeling DNA Restriction Endonuclease Fragments to High Specific Activity," <u>Analytical Biochemistry</u> 132(1):6-13 (1983)
	/	Kornberg, A., et al, "DNA Replication," 2 <sup>nd</sup> Edition, W.H. Freeman & Company, New York, Chapter 4, pp.150-152 (1992)
	/	Kwok, S., et al, "Effects of primer - template mismatches on the polymerase chain reaction: Human immunodeficiency virus type 1 model studies," <u>Nucleic Acids Research</u> , 18(4): 999-1005 (1990)

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	WO	9 0 0 2 8 1 9		Chu et al			
	WO	9 4 2 6 9 1 1		Wagner et al			
	WO	9 5 1 4 7 8 9		Berg et al			
	EP	0 4 0 6 7 3 8		Igarashi et al			

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

KS	✓	Sommer, R., et al, "Minimal homology requirements for PCR primers," <u>Nucleic Acids Research</u> , 17(16):6749 (1989)
	✓	Daube, S., et al, "Functional Transcription Elongation Complexes from Synthetic RNA-DNA Bubble Duplexes," <u>Science</u> , 258:1320-1324 (1992)
	✓	Tabor, S., et al, "A bacteriophage T7 RNA polymerase/promoter system for controlled exclusive expression of specific genes," <u>Proc. Natl. Acad. Sci. USA</u> , 82:1074-1078 (1985)
	✓	Cook, P.R., et al, "Transcription by an immobilized RNA polymerase from bacteriophage T7 and topology of transcription," <u>Nucleic Acids Research</u> , 20(14):3591-3598 (1992)
	✓	Gao, X, et al, "Cytoplasmic expression of a reporter gene by co-delivery of T7 RNA polymerase and T7 promoter sequence with cationic liposomes," <u>Nucleic Acids Research</u> , 21(12):2867-2872 (1993)
	✓	Elroy-Stein, O., et al, "Cytoplasmic expression system based on constitutive synthesis of bacteriophage T7 RNA polymerase mammalian cells," <u>Proc. Natl. Acad. Sci. USA</u> , 87:6743-6747 (1990)

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